

CLAIMS

What is claimed is:

- 5 1. A method for screening agents which inhibit an angiogenic response comprising
  - a) contacting:
    - i) an inactive pro form or convertase-activated form of an integrin  $\alpha$  subunit,
    - 10 ii) an agent to be tested for the ability to inhibit angiogenesis, and
    - iii) metalloprotease MT1-MMP, under conditions promoting an increase in activation of the integrin  $\alpha$  subunit in the absence of said agent, and
  - 15 b) correlating inhibition of said increase in integrin  $\alpha$  subunit activation with the ability of the agent to inhibit angiogenesis.
2. The method of claim 1 wherein the correlating step is accomplished by observing a difference in migration of the activated form versus the inactive 20 form of the alpha subunit in electrophoresis or chromatography.
3. The method of claim 1 or 2 wherein the MT1-MMP and pro form of the integrin  $\alpha$  subunit are recombinantly expressed within the same cell.
- 25 4. The method of claim 1 in which said contacting step is performed within a cell.

5. The method of claim 1 in which the activation of said alpha subunit is accomplished by cleavage of the pro form of said alpha subunit.
6. The method of any of the foregoing claims wherein the activation of said alpha subunit is accomplished by a change in glycosylation of the pro form of said alpha subunit.
- 10 7. The method of claim 1 in which said correlating step comprises the use of a reporter gene and detection of the presence or absence of the product of reporter gene expression as an indication of inhibition of an increase in alpha subunit activation.
- 15 8. A method of treating a patient suffering from a pathological condition in which angiogenesis is at least partially a causative or perpetuating factor comprising administering to said patient an agent capable of inhibiting an increase in activation of an inactive pro form or convertase-activated form of an integrin  $\alpha$  subunit by MT1-MMP metalloprotease.
9. A method of treating a patient suffering from a pathological condition in 20 which angiogenesis is at least partially a causative or perpetuating factor comprising treating said patient with agent that specifically inhibits activation of a pro form of a specific integrin  $\alpha$  subunit selected from the group consisting of  $\alpha_3$ ,  $\alpha_4$ ,  $\alpha_5$ ,  $\alpha_6$ ,  $\alpha_7$ ,  $\alpha_8$ ,  $\alpha_9$ ,  $\alpha_{2b}$ ,  $\alpha_E$  and  $\alpha_V$ .
- 25 10. The method of claim 9 in which said specific integrin  $\alpha$  subunit is  $\alpha_V$ .